Kindly amend the above identified patent application as follows:

IN THE CLAIMS:

Kindly amend the following claims:

1. (Currently amended) Targeted fused chimeric toxins comprising a genetically engineered molecule produced by fusing, at the level of cDNA:

A. at least one cell targeting moiety encoding GnRH or GnRH analog [that is adapted to recognize] recognizing specific cells bearing gonadotropin releasing hormone binding sites; and

B. at least one cell killing moiety that [is adapted to kill] kills specific cells bearing gonadotropin releasing hormone binding sites,

wherein the at least one cell targeting moiety consists essentially of gonadotropin releasing hormone and the at least one cell killing moiety consists essentially of a cell killing toxin;

wherein said chimeric toxins [are adapted to bond] bind directly [moieties] to GnRh binding sites on adenocarcinoma cells, benign uterine lyomyoma cells, endometrial island cells and/or pituitary tumor adenoma cells; and

wherein said chemeric toxin is a linear protein consisting essentially of peptide bonds.

2. (Previously amended) Targeted fused chimeric toxins according to claim 1 wherein the specific cells bearing gonadotropin releasing hormone binding sites are malignant adenocarcinoma cells.

3. (Previously amended) Targeted fused chimeric toxins according to claim 1 produced by fusing at the cDNA level an oligonucleotide encoding ten amino acids of a gonadotropin releasing hormone (GnRH) analog to a mutated DNA fragment of the full length Pseudomonas Exotoxin (PE), encoding the protein GnRH-PE66.

4. (Previously amended) Targeted fused chimeric toxins according to claim 1 produced by fusing at the cDNA level an oligonucleotide encoding ten amino acids of a gonadotropin releasing hormone (GnRH) analog to a DNA fragment comprising domains II and III of the Pseudomonas Exotoxin (PE), encoding the protein GnRH-PE40.

5. (Previously amended) A method for the production of a targeted chimeric toxin as defined in claim 1, wherein said chemira comprises GnRH-PE66, comprising ligating an oligonucleotide encoding ten amino acids of a gonadotropin releasing hormone (GnRH) analog upstream to a DNA fragment encoding a mutated form of PE, under conditions sufficient to produce a targeted chimeric toxin comprising GnRH-PE66.

6. (Previously amended) A method for the production of an adenocarcinoma cell targeted chimeric toxin as defined in claim 1, wherein said chimera comprises GnRH-PE40, comprising ligating an oligonucleotide encoding ten amino acids of a gonadotropin releasing hormone (GnRH) analog upstream to a DNA fragment encoding domains II and III of the PE, under conditions sufficient to produce a targeted chimeric toxin comprising GnRH-PE40.

7. (Previously amended) A composition useful for treatment in cancer therapy comprising as active ingredients chimeric toxins as defined in claim 1.

8. Canceled

9. (Previously amended) A method for adenocarcinomas therapy in a mammal comprising administering to the body of a mammal in need of such therapy an effective amount of at least one chimeric toxin as defined in claim 1 sufficient to at least reduce the growth of said adenocarcinoma.

10. (Previously amended) A method for adenocarcinoma therapy according to claim 9 further comprising systemic administration of said chimeric toxin.

11. Canceled

12. Canceled

13. Canceled

14. Canceled

15. Canceled

16. Canceled

17. Canceled

18. Canceled

19. Canceled

20. Canceled

21. (Previously amended) A plasmid comprising a promoter operably linked to a DNA molecule encoding targeted fused chimeric toxins as defined in claim 1

22. (Previously amended) A method of treating a mammal having at least one adenocarcinoma comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said adenocarcinoma.

23. (Previously amended) A method of treating a mammal having endometriosis comprising administering to said mammal in need thereof, an amount of a

pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said endometriosis.

24. (Previously Presented) A method for endometriosis therapy according to claim 23 further comprising trans cervical washing of the mammal's endometrial cavity.

25. (Previously Presented) A method of treating a mammal having a uterine myoma comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said uterine myoma.

26. (Previously Presented) A method of treating a mammal having a pituitary adenoma comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said pituitary adenoma.

27. (Previously Presented) A method of treating a mammal having BPH comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said BPH.

28. (Previously Presented) A method of treating a mammal having polycystic breast disease, comprising administering to said mammal in need thereof, an amount of a pharmaceutical composition, comprising a targeted chimeric toxin as claimed in claim 1, sufficient to ameliorate the effects of said polycystic breast disease.

29. (Currently amended) Targeted fused chimeric toxins comprising a genetically engineered molecule produced by fusing, at the level of cDNA:

A. at least one cell targeting moiety, encoding GnRH or a GnRH analog, that starts with Meth and [that is adapted to recognize] recognizes specific cells bearing gonadotropin releasing hormone binding sites; and

B. at least one cell killing moiety that [is adapted to kill] kills specific cells bearing gonadotropin releasing hormone binding sites,

wherein the at least one cell targeting moiety consists essentially of gonadotropin releasing hormone and the at least one cell killing moiety consists essentially of a cell killing toxin; and

wherein said fused chemeric toxin product comprises a linear protein sequence.

Kindly add the following claims:

30. (New) A targeted chimeric protein comprising a genetically engineered molecule comprising a fusion of:

at least one cell targeting moiety consisting essentially of a gonadotropin releasing hormone moiety, having up to 10 amino acid groups starting with Meth and having glycine as the sixth amino acid; and

at least one cell killing moiety that kills specific cells bearing gonadotropin releasing hormone binding sites.

31. (New) A fusion protein as claimed in claim 30 wherein said cell killing moiety comprises Pseudomonas Exotoxin A.

32. (New) A fusion protein as claimed in claim 30 that is a single protein.

33. (New) A fusion protein as claimed in claim 30 that has no linking moiety between said cell killing moiety and said cell targeting moiety.

34. (New) A fusion protein as claimed in claim 30 that has a linking moiety between said cell killing moiety and said cell targeting moiety, wherein said linking moiety is a linear protein.

35. (New) A fusion protein as claimed in claim 29 wherein said chimeric protein recognizes and/or binds to GnRH-binding sites on adenocarcinoma cells, benign uterine lyomyoma cells, endometrial island cells and/or pituitary tumor adenoma cells.